

## IMPROVING ENGLISH VOCABULARY TO FOSTER CROSS-CULTURAL COMMUNICATION THROUGH INTEGRATED BLENDED LEARNING AND DIGITAL PROJECTS

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**Abstract.** The purpose of this scientific work is to factually examine how the rate of elevation of the Blended Learning and Digital Adaptive Tools during teaching ESP is affected by the development of digital tools in English classes for non-philological audience. The scientific outcome employs correlation and board data analyses to explore the relationship between the variety of methods of modern century. The results indicate that as the digitalization show mark rises, the indication rate of both Blended Learning and Digital Adaptive Tools also increases. This study highlights the arguments for and against of blended learning environments that integrate face-to-face teaching with online resources, nevertheless the role of adaptive technologies in tailoring learning experiences takes as a great as a minor role. The findings suppose that these updated methods can dramatically boost vocabulary, offering valuable insights for military lawyers (that is cadets in this field) and institutions looking to implement effective language teaching practices.

**Keywords:** English Intercultural Communication, Lexical Terms, Blended Learning, Digital Adaptive Tools, Resource Access, Collaborative Learning, Self-Paced Learning.

### 1. Introduction

As the demand for English language proficiency increases globally, lexical competency—understanding and using vocabulary effectively—is crucial for

lexicology. Traditional teaching methods often fall short in addressing the varied usages of learners, which can hinder vocabulary acquisition. This article evaluates how blended learning, combined with adaptive teaching tools, can highly increase vocabulary in ESP English classes.

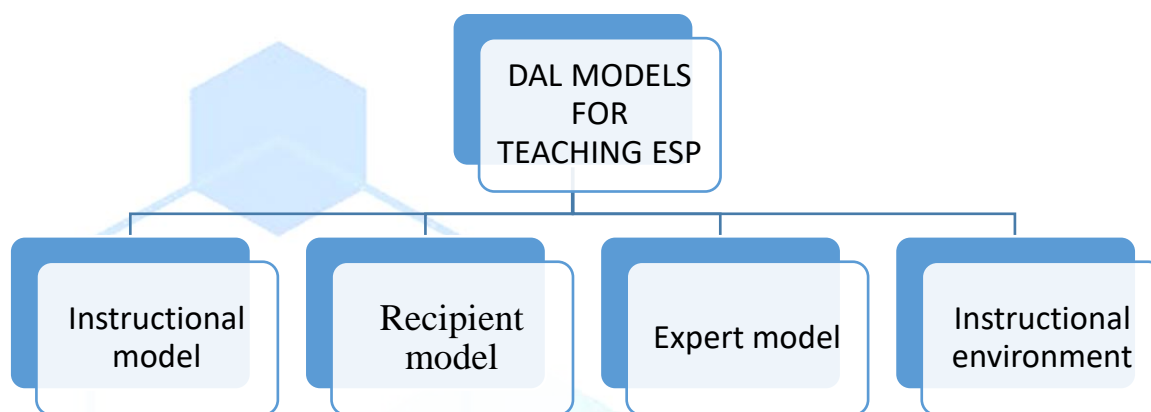
## 2. Literature Review

Blended learning and digital adaptive tools have achieved the scenic spot as tools for enhancing ESP teaching. Adaptive learning, originating from artificial intelligence in the 1970s, has proven effective in various domains, including military English classes for future lawyers. Blended learning, which merges online and face-to-face instruction, offers a fluent and flexible teaching environment that caters to diverse cadet needs. These tools also support self-paced learning, interactive vocabulary tasks, and collaborative opportunities, all contributing to more effective language teaching. Blended learning, also referred to as hybrid learning, technology-mediated, web-enhanced or mixed-mode teaching, is an educational approach that integrates online learning board data and modern online opportunities with traditional in-person classroom tools.

## 3. Data and Methodology

The study analyzes board data from 46 countries between 2019 and 2025, focusing on the Digital Adaptive Learning Tests conducted biennially in Asian countries. This data helps assess the development of e-government initiatives and the spread of adaptive learning tools like smartboards and tablets in military classes. The study also highlights how vocabulary and modern tools correlation benefits from systematic exposure, contextual practice, and personalized learning, which traditional classroom settings may not adequately provide. These tests must be divided into three parts as seeding part, pre-testing and pilot testing.

Pic.1. MODELS OF DAL (Digital Adaptive Learning) TESTS:



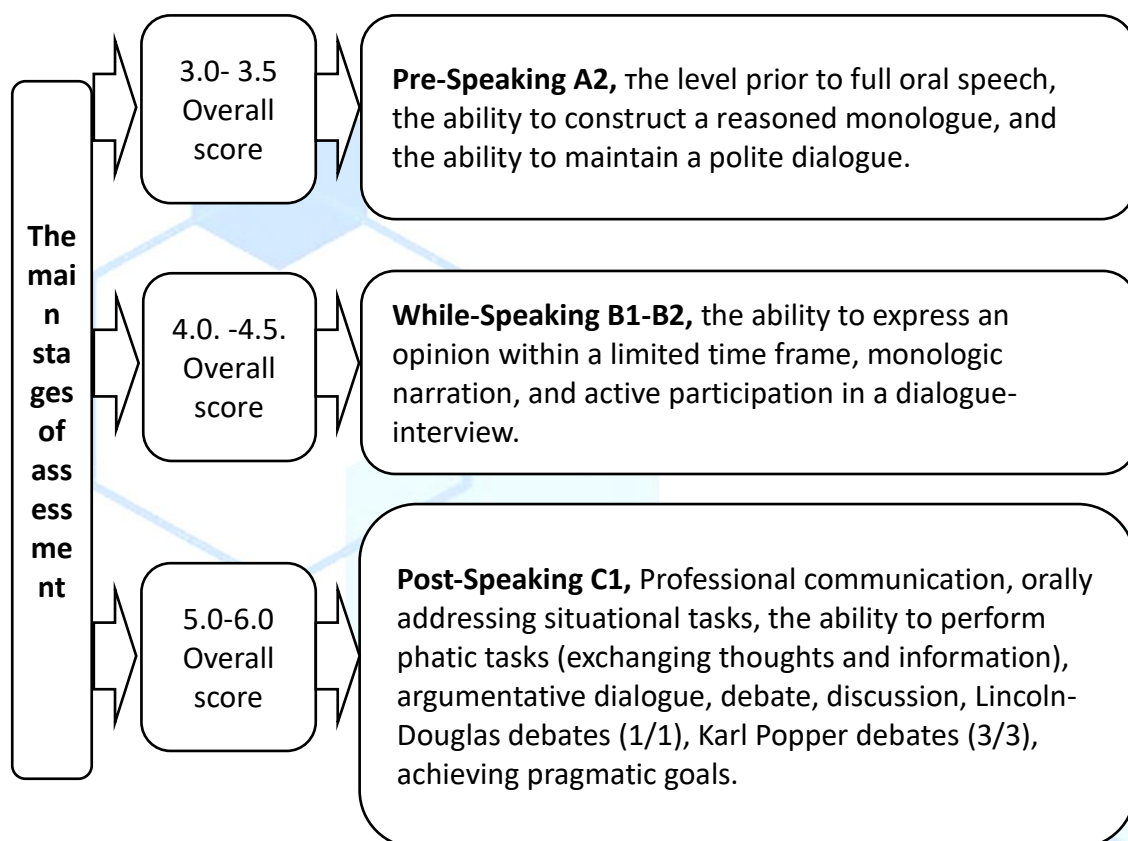
- + Expert model – The model with the information which is to be taught
- + Recipient model – The model which tracks and learns about the recipient
- + Instructional model – The model which actually conveys the information
- + Instructional environment – The user interface for interacting with the system

#### 4. Results and Discussion

The research fulfilled with cadets from the University of Public Safety in Uzbekistan revealed promising results. Cadets who engaged with digital tools like videos, animations, and online debates demonstrated significant improvements in vocabulary retention and comprehension. The study also explored the effectiveness of interactive methods in developing speaking competence, with experimental groups showing a 5.41% improvement compared to control groups.

#### Pic.2. Criteria for Assessing Oral Speech by Levels and Scores in English Language Classes<sup>1</sup>

<sup>1</sup> Murakaeva Shakhnoza Khayrullaevna Development of oral speech competence by using interactive methods of teaching English to future military lawyers, dissertation, Tashkent-2024, P-123



It was found that the use of modern methods in the process of teaching English allows for the achievement of the following results: educational goals, content, methods, technologies, forms of organization, innovations, and positive changes in the management of the education system; radical changes in the oral speech of cadets in organizing specific professional events, in particular, the tasks of teaching foreign languages, its content, methods, technologies, forms of organization, and the reorganization of the educational process, all of which contribute to positive innovations; the provision of the educational process with modern curricula containing new content, educational plans, teaching-methodological developments, textbooks, instructional guidelines, educational aids, electronic and digital versions of all methodological developments; the implementation of national and universal principles in the system of teaching English; assessment of oral speech competence in English in the cadet's specialty during the learning process and knowledge control, whose interrelationship is based on a unified goal, namely, the achievement of quality



education and the effectiveness of such education; democratization of educational content.

To ensure the accuracy of the study, only methodological aspects inherent to informational support and assessment technology were considered, with sampling statistical methods applied. The principle of majoring representativity (Weierstrass' convergence criterion) was employed. According to certain mathematical-statistical methods, a re-analysis of the research results was conducted, and the effectiveness of the study was evaluated by comparing the results of the cadets who participated in the experimental work.

In the above framework, the instructor plays a leading role in the process, creating conditions for effective work and guiding cadets from basic to professional language activities.

The interactive methods of teaching involve:

- Engaging every cadet in an active and dynamic knowledge acquisition process.
- Implementing differentiated and individual approaches to cadets.
- Developing effective communication skills such as listening, dialogue building, questioning, and teamwork (skills automated through repeated practice of professional vocabulary).

Cadets were tested using the author's model of three-level speech training:

**Author's model of three-level speech training and defining oral speech competency levels (oral-speech competence)<sup>2</sup>:**

**Level 1:** The ability to compose a logical statement, monologue-description, monologue-commentary, and monologue-narration.

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<sup>2</sup> Murakaeva Shakhnoza Khayrullaevna Development of oral speech competence by using interactive methods of teaching English to future military lawyers, dissertation, Tashkent-2024, P-123

Exercises: Monologues in the form of exercises for decoding and interpreting speech.

Implemented Principles: person-oriented and differentiated learning.

**Level 2:** The ability to provide illustrative arguments, express thoughts within a limited time, engage in phatic speech (exchanging ideas and information at the professional oral level).

Exercises: Print Case Study, Multimedia Case Study, Digital Case Study, Digital Storytelling, animations, videos, presentations, e-books, illustrations. Implemented Principles include: principles of visuality, accessibility, and problem-oriented learning.

**Level 3:** The ability to discuss various topics at a high professional level, engage in professional dialogue with authoritative argumentation in vocabulary.

Exercises: Post-debates, Debate Topics, Legal Argumentation Art, Dialogue between Judge and Lawyer, Legal speech etiquette, all forms of speech expressions. Implemented Principles: the principle of activity and the principle of matching theory with practice.

In the course of testing using the Legal Discussion method, conducted in three stages, the following observations were made: After reading an English text, only 10% of the material was retained, with only 24 cadets out of 244 retaining the information. From listening, 25% was remembered, and only 61 cadets out of 244 understood and could respond to the material. From viewing lessons using digital cases and animation, 60% was retained, with 146 cadets out of 244 assimilating, understanding, and remembering the lesson. Emotional delivery by the instructor led to a 70% retention rate, highlighting the importance of emotional presentation. From discussions and team work, 90% of the lesson was retained, equating to 171 cadets out of 244.

The essence of the "Legal Discussion" method in English is the practice of speech through professional vocabulary in debates involving foreign and domestic

politicians and lawyers, such as "The Art of Legal Argumentation: A Dialogue Between Judge and Lawyer":

**Judge:** Why should I accept your argument?

**Lawyer: Your Honor,** the **evidence** clearly shows that my client is **innocent**.

**Judge:** But what about the **eyewitness testimony**? Doesn't that **contradict** your argument?

**Lawyer: Your Honor,** eyewitness testimony is notoriously unreliable, and in this case, there are multiple inconsistencies in the witness statements that cast doubt on their **credibility**.

**Judge:** I see, but what about the legal precedent cited by the **prosecution**? How does that factor into your argument?

**Lawyer: Your Honor,** the legal **precedent** cited by the prosecution is flawed and fails to take into account the unique circumstances of this case, and it contradicts established legal principles.

**Judge:** But can you provide any examples to **support** your **argument**?

The experiment also included two stages: initial testing and final testing.

The goal of the experimental phase of our study was to assess the effectiveness of the proposed pedagogical system aimed at improving oral speech competence, focused on revealing professional qualities in the practice of using professional English in the future profession of cadets. We developed and tested the author's method of digital visualized cases in the form of video lessons, teaching aids, and textbooks for cadets studying in the "61030500 - Legal Support for Security" program. We formulated the conclusions of the study and practical recommendations for utilizing its results. The validity of the obtained results was verified using mathematical statistics methods, and

the main outcomes and conclusions of the experimental part were scientifically analyzed and integrated into broader practice.

For the experimental work in the dissertation research, we selected objects from higher military educational institutions in Uzbekistan, including: The University of Public Safety of the Republic of Uzbekistan (65 cadets), the Academy of the Ministry of Emergency Situations of the Republic of Uzbekistan (58), the Higher Military Aviation School of the Republic of Uzbekistan (36), and the Chirchik Higher Military Tank Command Engineering School (46). A total of 244 cadets participated, with 123 cadets in the experimental group and 121 cadets in the control group.

“The experiments with cadets of University of Public Safety of the Republic of the Uzbekistan conducted in three stages yielded the following observations: only 10% of the cadets could recall what they had read, meaning that out of 244 cadets, only 24 remembered what they had read. When it came to listening, 25% (61 out of 244 cadets) understood and were able to respond to what they heard. In classes with digital videos and animations, 35% (85 out of 244 cadets) who listened and viewed without subtitles, and 60% (146 out of 244 cadets) who viewed with subtitles, understood and retained the material. Furthermore, 70% (171 out of 244 cadets) remembered what they had heard and seen while listening to the instructor's emotional speech. In discussions with other cadets, utilizing Online debates (1/1) Buzz sessions debates (3/3) ordinary without online Buzz session debates, they retained 90% of what they had heard and seen. The effectiveness of these activities was assessed through specific criteria, with 171 out of 244 cadets demonstrating retention. The three-stage model for teaching speaking was tested using the author's methodology. The indicators of control and experimental groups in the experimental study on the topic "Developing Oral Language Competence in Teaching English to cadets by using Digital Adapted Methods" were analyzed. A total of 244 cadets participated in the study before and after the experiments, with 123 in the experiment.

To effectively implement these strategies, educators should consider the following:



1. Assessment and Goal Setting: Conduct initial assessments to identify learners' vocabulary levels and establish clear learning objectives.
2. Resource Selection: Curate a blend of traditional and digital resources that align with curriculum goals, ensuring a comprehensive approach to vocabulary instruction.
3. Integration of Adaptive Technologies: Utilize adaptive learning platforms that offer personalized vocabulary practice, fostering tailored learning experiences.
4. Fostering Collaborative Learning: Encourage group activities and discussions that promote the contextual use of vocabulary, enhancing peer learning. Thus, a systematic approach to developing speaking competence in English for future military lawyers was implemented using interactive methods. Various types of assignments, innovative activities, authorial materials, and exercises, as well as digital and video lessons with and without subtitles, were utilized to enhance understanding through listening and viewing.

**TABLE 1**

**INDICATORS OF CONTROL AND EXPERIMENTAL GROUPS BEFORE AND AFTER THE EXPERIMENTAL STUDY<sup>3</sup>**

	Groups	Number of Cadets	Answers at Three Levels (in Numbers and Percentages)		
			Excellent (5)	Good (4)	Satisfactory (3)
<b>Before the Experiment</b>	• Experimental Group	123	29 23.6	56 45.5	38 30.9

<sup>3</sup> Murakaeva Shakhnoza Khayrullaevna Development of oral speech competence by using interactive methods of teaching English to future military lawyers, dissertation, Tashkent-2024, P-123

	• Control Group	121	25 20.7	56 46.3	40 33
After the Experiment	• Experimental Group	123	51 41.5	60 48.8	12 9.7
	• Control Group	121	28 32.2	59 48.8	34 19

To assess the statistical significance of differences in knowledge acquisition among cadets in the experimental and control groups, the distribution of cadets and Pearson's two-sample test were used. Therefore, the numerical data related to the experimental and control groups should be considered as two statistical samples drawn from general populations with distribution functions  $F_e$  and  $F_c$ . Let  $X$  and  $U$  denote the random variables corresponding to these two general populations, meaning they have the distribution functions  $F_e$  and  $F_c$ . Here,  $R(A)$  represents the probability of event  $A$ .

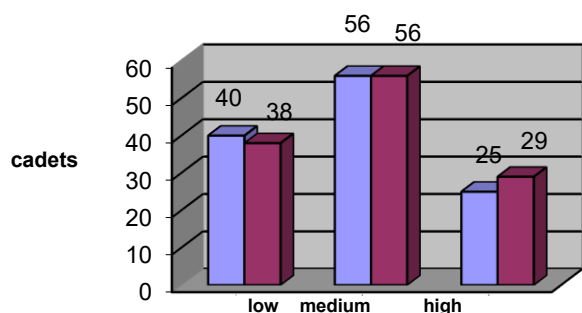
Based on the data from Tables 8a and 8b, we will construct relative frequency polygons before and after the experiment.

Relative Frequency Polygons

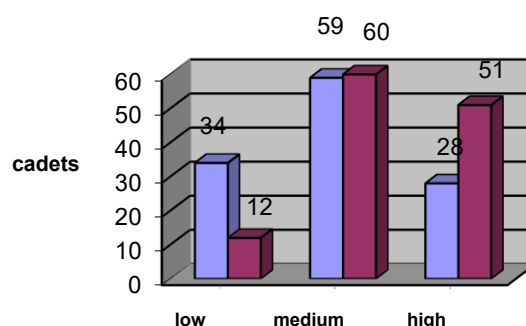
Before the Experiment After the Experiment

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<sup>4</sup> Murakaeva Shakhnoza Khayrullaevna Development of oral speech competence by using interactive methods of teaching English to future military lawyers, dissertation, Tashkent-2024, P-123



**Fig. 3a. Blue-control groups**  
**Red-experimental groups**



**Fig. 3b. Blue-control groups**  
**Red-experimental groups**

Based on the table, we will calculate the average assimilation coefficient, the average sample variance, the accuracy indicators for determining the mean values, the cadet statistics, the degrees of freedom for the cadet criterion, and the confidence intervals for the mathematical expectation before and after the experiment.

**Table 8.**

**Absorption Indicators<sup>5</sup>**

$\bar{X}$	$\bar{Y}$	$S_x^2$	$S_y^2$	$C_x$	$C_y$	$T_{x,y}$	$K$	$X_{n,m}^2$	$\Delta_x$	$\Delta_y$
1.93	1.88	No Effect Before the Experiment								
2.31	1.95	0,4139	0,5851	3	4	3.96	232.6	17.2	0,11	0,13
								3		

Thus, at the end of the experiment, the average absorption rate was 12%, indicating its effectiveness. From the above results, we can calculate the quality indicators of the experiment. It should be noted that the criterion for assessing

<sup>5</sup> Murakaeva Shakhnoza Khayrullaevna Development of oral speech competence by using interactive methods of teaching English to future military lawyers, dissertation, Tashkent-2024, P-123

knowledge retention is  $K_{okz}$ , and the criterion for evaluating knowledge level is also  $K_{okz}$ .

$$K_{okz} = \frac{(\bar{X} - \Delta_x)}{(\bar{Y} + \Delta_y)} = \frac{2,31 - 0,11}{1,95 + 0,13} = \frac{2,2}{2,08} = 1,1 > 1;$$

$$K_{ocz} = (\bar{X} - \Delta_x) - (\bar{Y} - \Delta_y) = (2,31 - 0,11) - (1,95 - 0,13) = 2,2 - 1,82 = 0,48 > 0;$$

This indicates that the criterion for assessing knowledge retention is greater than zero, while the criterion for evaluating knowledge level is also greater than zero. Thus, the quality indicator in the experimental groups is higher than that of the control groups. According to the research results, scores among cadets studying English in the experimental groups increased by 6.41%, demonstrating an improvement in speaking competence. In the control groups, all indicators remained almost unchanged, and no development dynamics were observed. This, in turn, proves that the use of interactive methods protected by copyright, without the need for an author, yields effective and positive results in the educational process.

## 5. Conclusion

Blended learning combined with digital adaptive tools offer a robust framework for improving vocabulary in English ESP classes for the military lawyers of Uzbekistan. By providing personalized and engaging vocabulary instruction, these methods help our cadets navigate the complexities of the English classes for non-philological audience. Future research should investigate the long-term impact of these approaches and their scalability across different educational settings<sup>6</sup>.

## References

1. <sup>6</sup> Murakaeva Shakhnoza Khayrullaevna Development of oral speech competence by using interactive methods of teaching English to future military lawyers, dissertation, Tashkent-2024, P-123



Murakayeva, S. K. (2022). Murakayev II The Constitution is the basis of our free and prosperous life, further development and prosperity of the country. In *international journal of conference series on education and social sciences (online)* (Vol. 2, No. 5).

Khoshimkhujaeva, M., Rakhimova, S., Abdullaeva, N., Miralieva, S., & Babakhodjaeva, S. (2020). Motivation process of learning in english through the games. *International Journal of Psychosocial Rehabilitation*, 24(S1), 375-380.

Муракаев, И., & Камолов, А. (2023). Необходимость совершенствования законодательной базы использования беспилотных летательных аппаратов и подготовки специалистов по их управлению. *Реформы в сфере подготовки юридических кадров в Узбекистане: анализ результатов и перспективные задачи*, 1(1), 293-300.

Муракаев, И. (2022). Основные подходы к цифровизации деятельности Национальной гвардии Республики Узбекистан по обеспечению общественной безопасности. *Актуальные вопросы и перспективы цифровизации судебно-правовой деятельности*, 1(01), 54-60.

Jumaniyozov, T. S., & Murakayev, I. I. (2022). Specific features of current schedule automation in higher military educational institutions.

Abduazizovna, P. Z., & Lazokat, I. (2025, April). TIPS FOR CHOOSING THE RIGHT ASSESSMENT STRATEGY IN TEACHING ENGLISH. In *International Educators Conference* (pp. 233-240).

Lazokat, I. (2022). Enhancing listening skills with the help of digital tools. *Thematics journal of English language teaching*, 6(1), 136-139.

Иканова, Л. (2025, March). ОПРЕДЕЛЕНИЕ ПРАВ ОСУЖДЕННЫХ И ЛИШЕННЫХ СВОБОДЫ ЛИЦ В РЕСПУБЛИКЕ УЗБЕКИСТАНБ И ИХ ВНЕДРЕНИЕ В ПРАКТИКУ. In *International Educators Conference* (pp. 116-120).

Ikanova, L. (2025). DISTANCE LEARNING FOR LANGUAGE COURSES: UNLOCKING THE WORLD THROUGH VIRTUAL CLASSROOMS. *JOURNAL OF NEW CENTURY INNOVATIONS*, 72(1), 287-291.

Latipovna, S. M. (2019). Psychological Correction Opportunities of the Tendency for Machiavellianism in Pedagogue's Personality.

Саипова, М. (2023). МАЪНАВИЙ ТАРБИЯДА МИЛЛИЙ ВА ДИНИЙ ҚАДРИЯТЛАРНИНГ УЙЎУНЛИГИ: МЕҲНАТ МИГРАЦИЯСИНИНГ ТАЪСИРИ МАСАЛАЛАРИ. *ACADEMIC RESEARCH IN MODERN SCIENCE*, 2(6), 81-85.

Saipova, M. (2022). Reasons for Labor Migration and Impact of This Process on the Family. *JournalNX*, 8(9), 55-58.